

Shade Trees

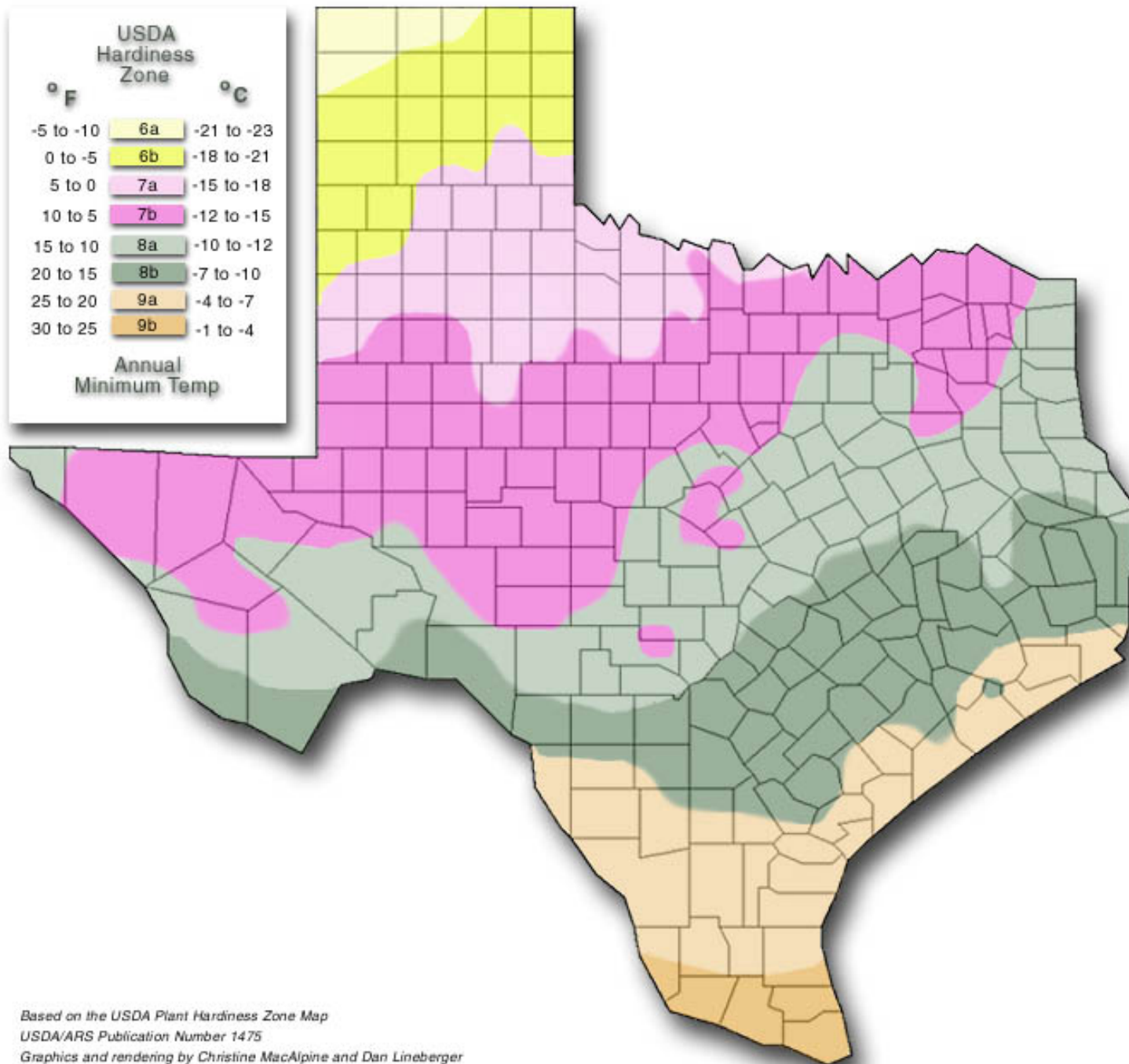
Dividing and Grouping Plants Together Based on Water Use Zones



Low water-use –Area that features native and drought-tolerant plant varieties to be watered only as needed

Medium water-use –This area usually features low to moderate water use plants which require supplemental watering once a week or less

High water-use –An area that includes more lush vegetation and any turf or lawn areas which require watering more than once per week



Based on the USDA Plant Hardiness Zone Map
USDA/ARS Publication Number 1475
Graphics and rendering by Christine MacAlpine and Dan Lineberger
July, 1999

Texas Ash

Fraxinus texensis

- **Flowers:** Green or purple
- **Fruit:** Woody winged samaras
- **Foliage:** Dark green to olive green above and paler green below
- **Approx. Height:** 50'
- **Approx. Width:** 40'
- **Sun/Drainage Requirement:** Full sun; alkaline, well-drained soil
- **Fall Color:** Intense shades of burgundy and gold
- **Hardiness Zones:** 7-9
- **Water:** Low-Medium
- Very drought and heat tolerance, good for parking lots and medians



White Ash

Fraxinus americana

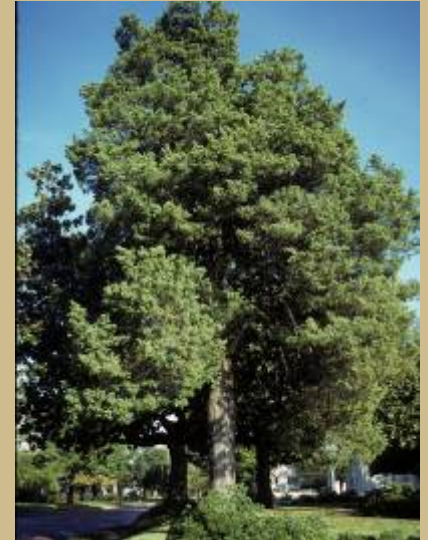
- **Flowers:** Green, inconspicuous
- **Fruit:** Green to tan samaras
- **Foliage:** Dark green above and lighter below
- **Approx. Height:** 50' -70'
- **Approx. Width:** 40' -50'
- **Sun/Drainage Requirement:** Full to partial sun/shade; appreciates good, moist, well-drained soils
- **Fall Color:** Yellow to red, burgundy or purple depending on specimen
- **Hardiness Zone:** 4-9
- **Water:** Medium
- Resistant to heat, grows rapidly and pyramidal when young but develops a more round, oval shape as it matures, excellent in parks and large areas



Eastern Red Cedar

Juniperus virginiana

- **Flowers:** Yellow and green
- **Fruit:** Females produce blue berries
- **Foliage:** Evergreen, scale-like foliage can be coarse or fine-cut, and varies in color from gray-green to blue-green to light- or dark-green
- **Approx. Height:** 40'
- **Approx. Width:** 20'
- **Sun/Drainage Requirement:** Full sun; well-drained soil
- **Hardiness Zone:** 3-9
- **Water:** Low-Medium
- One of the best evergreens for screening and wildlife, resists drought, heat, and cold



Afghan Pine

Pinus Eldarica

- **Flowers:** Monoecious; inconspicuous and not showy; male cones yellowish, female cones green.
- **Fruit:** Reddish brown ovate to oblong cone, 3 to 4 inches long.
- **Foliage:** Evergreen needles, 3 to 6 inches long, 2 or 3 per fascicle, thin and irregularly twisted, bright green to blue green.
- **Approx Height:** 30 – 50'
- **Approx. Width:** 15-25'
- **Sun/Drainage Requirement:** Full sun, drought tolerant.
- **Hardiness Zones:** Hardy to zone 7



Arizona Cypress

Cupressus arizonica

- **Flowers:** Tiny, yellow in fall
- **Fruit:** Dark reddish brown cones
- **Foliage:** Soft-textured, pale, gray-green to blue-green, evergreen, scale-like and flattened against branchlets, like a braided bullwhip
- **Approx. Height:** 30'-40'
- **Approx. Width:** 15'-20'
- **Sun/Drainage Requirement:** Full sun; dry, sandy well-drained soil
- **Hardiness Zones:** 7-10
- **Water:** Low
- Graceful, pyramid shaped, drought tolerant, dense conifer, fast growing



Bald Cypress

Taxodium distichum var. distichum

- **Flowers:** Inconspicuous, brown
- **Fruit:** Cones
- **Foliage:** Deciduous conifer, dark green needle-like leaflets give it a feathery, fine-textured appearance
- **Approx. Height:** 50' – 75'
- **Approx. Width:** 15' – 25'
- **Sun/Drainage Requirement:** Full sun to partial sun and shade; sandy, well-drained
- **Fall Color:** Bronze to rich pumpkin brown
- **Hardiness Zones:** 5-11
- **Water:** Medium
- **Attracts birds and squirrels, medium growth rate**



Loblolly Pine

Pinus Taeda

- **Flowers:** Monoecious; males long cylindrical, red to yellow, in clusters at branch tips; females yellow to purple.
- **Fruit:** Ovoid to cylindrical, 3 to 6 inch red-brown cones; umbo is armed with a short spine, maturing in early fall.
- **Approx. Height:** 65-100'
- **Approx. Width:** 5'
- **Sun/Drainage Requirement:** Full sun; dry to moist, well-drained soil
- **Hardiness Zones:** 6-9



Cedar Elm

Ulmus crassifolia

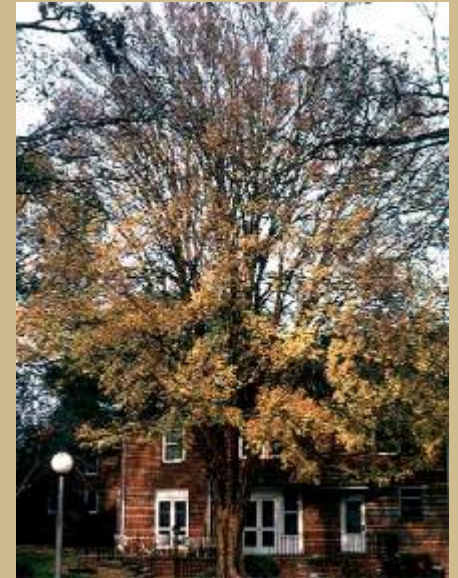
- **Flowers:** Red-brown to red-green
- **Fruit:** Winged seeds in fall
- **Foliage:** Deciduous dark green leaves are small and rough textured
- **Approx. Height:** 50' to 70'
- **Approx. Width:** 40' to 60'
- **Sun/Drainage Requirement:** Full sun; can withstand heavy, poorly drained clay soils & soils that are moderately compacted
- **Fall Color:** Beautiful golden yellow
- **Hardiness Zone:** 6-9
- **Water:** Low-Medium
- Very high heat tolerance, tough adaptable shade tree, rounded crown, reasonably fast grower



Lacebark Elm

Ulmus parvifolia

- **Flowers:** Inconspicuous
- **Fruit:** Green to maroon
- **Foliage:** Lustrous, dark green, serrated edges
- **Approx. Height:** 60'
- **Approx. Width:** 40'
- **Sun/Drainage Requirement:** Full sun; widely adaptable
- **Fall Color:** Yellow to reddish purple
- **Hardiness Zones:** 4-9
- **Water:** Low-Medium
- Outstanding, easy to grow, tough and durable, rounded shape, interesting bark texture



Black Hickory

Carya texana

- **Flowers:** Male catkins in early spring
- **Fruit:** Nut is four angled
- **Foliage:** Finely serrate, rusty-hairy when young, becoming shiny dark green above, pale green below
- **Approx. Height:** 140'
- **Approx. Width:** 100'
- **Sun/Drainage Requirement:** Partial shade; dry, well-drained soil
- **Fall Color:** Golden yellow
- **Hardiness Zone:** 5-8
- **Water:** Low-Medium
- Attracts butterflies, very high heat tolerance, widely adaptable



Ashe Juniper

Juniperus ashei

- **Flowers:** Inconspicuous
- **Fruit:** Blue, berry-like cones
- **Foliage:** Evergreen, fragrant, dark-green, feathery, grows in dense sprays
- **Approx. Height:** 30'
- **Approx. Width:** 15'-25'
- **Sun/Drainage Requirement:** Full sun to partial shade; dry, well-drained soil
- **Hardiness Zone:** 7-9
- **Water:** Low
- Drought tolerant, attracts butterflies, shaggy bark, some may be allergic to its pollen in winter, multi-trunked



Southern Magnolia

Magnolia grandiflora

- **Flowers:** Very fragrant, large, white
- **Fruit:** Red seeds
- **Foliage:** Smooth, thick, leathery, evergreen leaves, shiny on top and rusty below
- **Approx. Height:** 60'-80'
- **Approx. Width:** 30'-50'
- **Sun/Drainage Requirement:** Full sun to partial shade; moist, rich, well-drained soil
- **Hardiness Zones:** 6-9
- **Water:** Medium
- Fast growing, pyramidal to oval shaped, good for landscaping



Ash-leaf Maple

Acer negundo

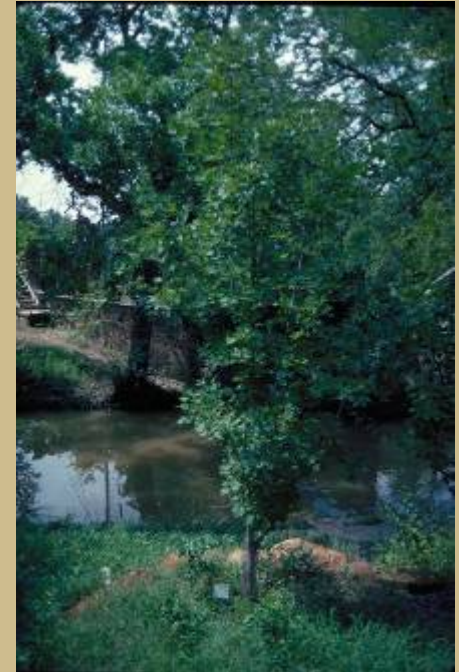
- **Flowers:** Inconspicuous
- **Fruit:** Green samaras
- **Foliage:** Light green above, paler underneath
- **Approx. Height:** 40' -50'
- **Approx. Width:** 35' -40'
- **Sun/Drainage Requirement:** Full sun; moist, well-drained soil
- **Fall Color:** Orange, yellow, red
- **Hardiness Zone:** 3-8
- **Water:** Low-Medium
- Hardy and fast growing, high drought tolerance, attracts birds, may grow in more adverse sites where others will not



Caddo Maple

Acer saccharum var. caddo

- **Flowers:** Inconspicuous, red
- **Fruit:** Samaras
- **Foliage:** Leathery, dark green, star shaped leaves turn slightly under
- **Approx. Height:** 60'
- **Approx. Width:** 30'
- **Sun/Drainage Requirement:** Full sun; alkaline, well-drained soil
- **Fall Color:** Brilliant red and gold
- **Hardiness Zones:** 4-8
- **Water:** Low
- Rapid grower, heat and drought tolerant, crown is oval-shaped



Bigelow Oak

Quercus sinuata var. *breviloba*

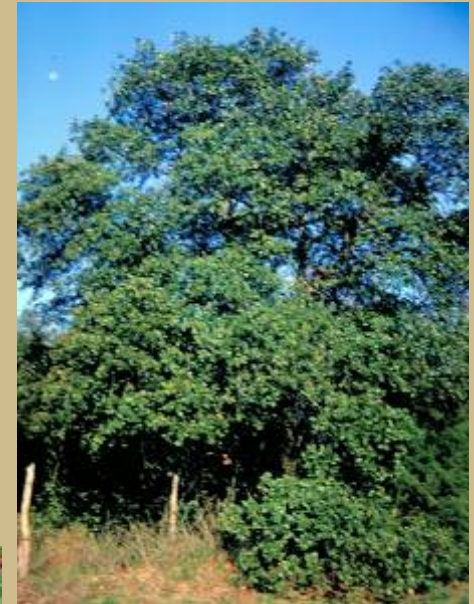
- **Flowers:** Red, male catkins 2" long
- **Fruit:** Small, shiny, brown acorns
- **Foliage:** Dull green or silvery because of tiny hairs
- **Approx. Height:** 40'
- **Approx. Width:** 35'
- **Sun/Drainage Requirement:** Full sun; alkaline, well-drained soil
- **Hardiness Zones:** 7-9
- **Water:** Low
- Very high heat tolerance, drought tolerant, multi-trunked



Blackjack Oak

Quercus marilandica

- **Flowers:** Yellow catkins
- **Fruit:** Acorns
- **Foliage:** Club-shaped, glossy dark green on top & rusty-yellow hairy beneath
- **Approx. Height:** 30' -50'
- **Approx. Width:** 25' -35'
- **Sun/Drainage Requirement:** Partial shade; well-drained soil
- **Fall Color:** Red
- **Hardiness Zone:** 3-9
- **Water:** Medium
- Slow growing but long lived, able to survive on very poor soil but develops an attractive form when given good soil and room



Bur Oak

Quercus macrocarpa

- **Flowers:** Insignificant flowers
- **Fruit:** Acorns
- **Foliage:** Deciduous, leaves are from one-half to one foot long
- **Approx. Height:** 75' and up
- **Approx. Width:** 50' and up
- **Sun/Drainage requirement:** Full sun; sandy, well-drained
- **Fall Color:** Yellow green to brown
- **Hardiness Zones:** 3-8
- **Water:** Low
- Very drought-tolerant and casts dense shade, is resistant to air pollution and heat stress, slow growth rate



Chinquapin Oak

Quercus muhlenbergii

- **Flowers:** Green
- **Fruit:** Dark brown acorns
- **Foliage:** Deciduous, unique saw-tooth leaves, deep green leaf color creates a lush appearance
- **Soil Type:** Limestone soils, rocky or sandy soils, alkaline adaptable
- **Light Exposure:** Full sun
- **Growth Rate:** Relatively fast
- **Approx. Height:** 50' to 90'
- **Approx. Width:** 20' to 40'
- **Fall Color:** Yellow to bronze
- **Hardiness Zone:** 5-7
- **Water:** Medium
- Drought/heat tolerant, excellent shade tree, open crown, attracts hummingbirds and butterflies



Durand Oak

Quercus sinuata var. *sinuata*

- **Flowers:** Red, male catkins 1 to 2" long
- **Fruit:** Small acorns
- **Foliage:** Light to dark green, lustrous
- **Approx. Height:** 60'
- **Approx. Width:** 40'
- **Sun/Drainage Requirement:** Full sun; moist, neutral to slightly acidic, well-drained soil
- **Fall Color:** Yellow to red
- **Hardiness Zones:** 7-8
- **Water:** Low
- High heat tolerance



Escarpment Live Oak

Quercus fusiformis

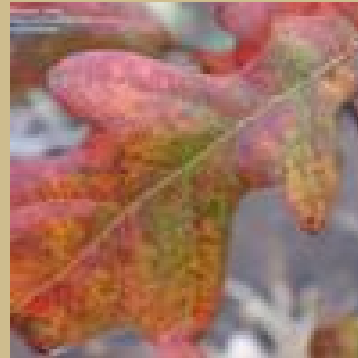
- **Flowers:** Green catkins
- **Fruit:** Spindle-shaped acorns
- **Foliage:** Evergreen, firm textured, leathery, medium to dark green
- **Approx. Height:** 20' -50'
- **Approx. Width:** 25' -40'
- **Sun/Drainage Requirement:** Full sun to partial shade; well-drained soil
- **Hardiness Zone:** 7-10
- **Water:** Low
- Thicket forming tree, hardy, picturesque gnarled branches, drought tolerant, attracts birds and butterflies



Lacey Oak

Quercus glaucooides

- **Flowers:** Inconspicuous
- **Fruit:** Brown acorns
- **Foliage:** New leaves are peach colored, maturing to blue-green
- **Approx. Height:** 30'
- **Approx. Width:** 20'
- **Sun/Drainage Requirement:** Full sun; limestone, well-drained soil
- **Fall Color:** Brown to yellow
- **Hardiness Zones:** 7-9
- **Water:** Low-Medium
- Great for small areas, highly tolerant to heat and drought, attracts birds



Live Oak

Quercus fusiformis

- **Flowers:** Inconspicuous, brown
- **Fruit:** Acorns
- **Foliage:** Evergreen, smooth lightly toothed margins
- **Approx. Height:** 60' to 80'
- **Approx. Width:** 60' to 120'
- **Sun/Drainage Requirement:** Full sun, partial sun/shade; well drained soil
- **Fall Color:** No fall color change
- **Hardiness Zone:** 7-10
- **Water:** Low-Medium
- Casts deep shade, dense round crown, durable, large trunk, high drought tolerance, attracts butterflies, highly desirable landscaping tree, moderate growth rate



Post Oak

Quercus stellata

- **Flowers:** Inconspicuous
- **Fruit:** Brown acorns
- **Foliage:** Wavy margined to deeply lobed, shiny dark green
- **Approx. Height:** 40' -50'
- **Approx. Width:** 35' -50'
- **Sun/Drainage Requirement:** Full sun; well-drained soil
- **Fall Color:** Copper
- **Hardiness Zones:** 6-9
- **Water:** Low-Medium
- High drought tolerance, wonderful silhouette in winter, dense rounded canopy, twisted branches



Shumard Oak

Quercus shumardii

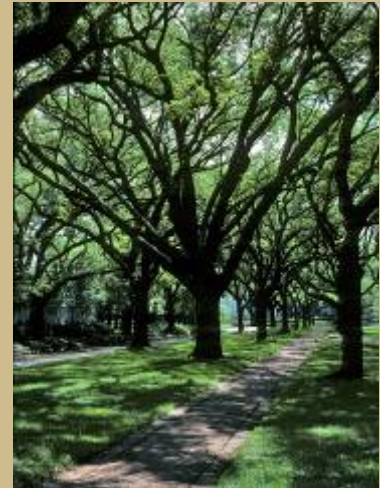
- **Flowers:** Inconspicuous
- **Fruit:** Acorns
- **Foliage:** Top is dark green and lustrous, bottom is paler green with tufts of hair where veins connect
- **Approx. Height:** 80'
- **Approx. Width:** 80'
- **Sun/Drainage Requirement:** Full sun to partial shade; moist to dry, well-drained soil
- **Fall Color:** Outstanding crimson to red
- **Hardiness Zones:** 4-8
- **Water:** Medium
- Fast growing and adaptable, drought resistant, attracts butterflies and squirrels



Southern Live Oak

Quercus virginiana

- **Flowers:** Yellow catkins
- **Fruit:** Acorns
- **Foliage:** Evergreen, dark-green, waxy, unlobed leaves
- **Approx. Height:** 50'
- **Approx. Width:** 60'
- **Sun/Drainage Requirement:** Full sun; dry to moist, well-drained soil
- **Hardiness Zones:** 7-9
- **Water:** Medium
- Most attractive of all evergreen oaks, picturesque, spreading dense crown, majestic and long-lived, with a crown that can spread up to twice its height



Texas Red Oak

Quercus buckleyi

- **Flowers:** Reddish-brown catkins
- **Fruit:** Reddish-brown acorns
- **Foliage:** Deciduous, 4-8" long dark green, deeply lobed
- **Approx. Height:** 75'
- **Approx. Width:** 60'
- **Sun/Drainage Requirement:** Full sun; alkaline adaptable, well-drained soil
- **Fall Color:** Vivid red and orange
- **Hardiness Zone:** 5-9
- **Water:** Low
- High heat tolerance, long-lived, rounded crown, requires pruning to develop strong structure, rapid growth rate



Pecan

Carya illinoensis

- **Flowers:** Hanging, yellow green catkins
- **Fruit:** Edible nuts
- **Foliage:** Yellow green, feather-like
- **Approx. Height:** 90'
- **Approx. Width:** 80'
- **Sun/Drainage Requirement:** Full sun; well adapted to all soils but prefers rich, moist, well-drained soil
- **Fall Color:** Yellow
- **Hardiness Zones:** 5-9
- **Water:** Medium
- Attracts butterflies, slow growing



American Sycamore

Platanus occidentalis

- **Flowers:** Inconspicuous
- **Fruit:** Orange, brown clusters of achenes
- **Foliage:** Medium to dark-green, maple-shaped leaves
- **Approx. Height:** 75' -100'
- **Approx. Width:** 75' -100'
- **Sun/Drainage Requirement:** Full sun; moist, well-drained soil
- **Fall Color:** Medium yellow to red
- **Hardiness Zone:** 4-9
- **Water:** Medium
- Bark has large patches of creamy white in winter, massive trunk, good tree for difficult growing sites, drought tolerant, grows quickly



Black Walnut

Juglans nigra

- **Flowers:** Inconspicuous
- **Fruit:** Green nuts
- **Foliage:** Fragrant, serrated, dark green
- **Approx. Height:** 50' -75'
- **Approx. Width:** 50' -75'
- **Sun/Drainage Requirement:** Full sun to partial shade; moist, fertile, well-drained soil
- **Fall Color:** Yellow
- **Hardiness Zone:** 4-9
- **Water:** Medium
- One of the scarcest and most coveted hardwoods, attracts birds and butterflies, good for wide open spaces

